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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,708	03/27/2006	Stephan Hueffer	286649US0PCT	2252
22850	7590	11/26/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			NGUYEN, VU ANH	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			11/26/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/573,708	HUEFFER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Vu Nguyen	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____ .
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>03/27/2006, 06/08/2006</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: ____ .

## DETAILED ACTION

### ***Claim Objections***

1. Claims 4 and 17 are objected to because of the following informalities: Improper Markush group. The format should be either "selected from the group consisting of....and..." or "selected from...or..." Also, there is no "and" or "or" inserted before the last element in these claims. Appropriate correction is required.
2. Claims 6, 8, 9, and 18-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. These claims depend on either claim 1 or claim 16 but do not alter the aqueous dispersion in claim 1 or the copolymer in claim 16 in any way.

### ***Claim Rejections - 35 USC § 101/112***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 8, 15, 18, and 19 provide for the use of an aqueous dispersion, a fibrous substrate, a copolymer, and an aqueous dispersion, respectively, but, since the claims

do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 8, 15, 18, and 19 are also rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 16, line 1, the use of the phrase "obtainable by" renders unclear as to whether other copolymers made using other unspecified processes are also within the claimed scope. If applicant is intending to specify the copolymer which is produced by the recited process, then the phrase "obtained by" should be used.

8. Claims 9-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The process recited in claim 9 is indefinite as no precise process steps are given.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-10, 12-13, and 16-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Danish et al. (US 6,336,942).

11. Corresponding to the limitations set forth in these claims, Danish et al. (Danish, hereafter) teaches an aqueous dispersion of a copolymer obtained by free radical copolymerization of 45-60 mol% of component A, 40-50 mol% of component B, 0-5 mol% of component C, wherein these mole percents are based on 100 mol% of A+B+C (col. 4, lines 47-52), and 25-50 mol% of component D, wherein this mole percent is based on the number of moles of carboxyl groups on the copolymer ABC (col. 6, lines 54-56). Component A comprises C4-C6 ethylenically unsaturated carboxylic acid anhydride (col. 2, lines 46-58). Component B comprises, preferably, oligomers of isobutene having an  $M_n$  of 1000-2300 (col. 3, lines 38-42). Component C comprises species recited in claims 4 and 17 (col. 3, lines 48-67; col. 4, lines 1-46). Component D

comprises species recited as component D in claims 1 and 16 (col. col. 7). The water content in the aqueous dispersion is 30-90 wt% (col. 6, line 26). The anhydride groups are hydrolyzed and neutralized to an extent greater than 10% after the copolymerization or even during the polymerization by adding water then dilute aqueous bases (col. 6, lines 14-24). In the process for preparing the aqueous dispersion comprises, component A and, if used, component C, are initially taken. Monomer A and initiator are then metered in (col. 5, lines 61-67; col. 6, lines 1-9). The desired fraction of the anhydride groups are amidated or esterified with component D and the remaining anhydride groups are hydrolyzed and neutralized to the desired extent (col. 6, lines 46-53; col. 7, lines 58-64). The aqueous dispersion is used to treat leather and skins (col. 8, lines 9-46) and also used as dispersant for inorganic and organic pigments (col. 8, lines 47-67). It is noted that leather is a collagen fibrous material.

### ***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 1796

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Danish et al. (US 6,336,942).

15. Regarding the limitations set forth in this claim, the fibrous substrate of claim 12 has been shown to be anticipated by Danish in the form of treated leather as mentioned above. Danish is silent as to an article made of the disclosed leather. However, considering that leather is widely employed for upholstery and automatic parts and considering that the treated leather disclosed by Danish overcomes many disadvantages associated with prior art methods, including insufficient penetration (col. 1, lines 46-56), it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have employed the treated leather taught by Danish to prepare articles for use in upholstery and automatic parts.

16. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danish et al. (US 6,336,942) in view of Pabst et al. (WO 03/023070 A1). Notes: *Document US 2004/0194222 is being relied upon as an English equivalence of the document WO 03/023070 A1.*

17. Regarding the limitations set forth in these claims, the process of claim 11 and the substrate of claim 14 have been shown to be anticipated by Danish as discussed above. The prior art provides no preference as to the nature of the pre-treated leather.

In the disclosed examples, the prior art employs chrome-tanned cattle wet-blue (col. 10, line 35). However, the prior art makes no mention of wet-white leather.

18. Pabst et al. (Pabst, hereafter) teaches polyisobutene as substitute for wool fat in stuffing agents for the production of leather (Title). The polyisobutene is modified with acid anhydride such as maleic anhydride or succinic anhydride [0078-0084]. The polyisobutene is made into a fatliquoring composition that can be employed to treat not only wet-blue leather but also wet-white leather [0073].

19. In light of such teachings and considering the dispersion taught by Danish not only has good penetration and water repellent properties but also enhanced fatliquoring and retanning action (col. 8, lines 9-14), and further in consideration of the disadvantage of using wet-blue leather as related to disposal of chromium-contaminated (by)products, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have employed the aqueous dispersion taught by Danish for treatment of not only wet-blue leather but also wet-white leather so as to minimize the cost associated with disposal of chromium-contaminated wastes and byproducts and to improve the properties of the treated leather due to the superior properties of the treatment composition taught by Danish.

20. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Danish et al. (US 6,336,942) in view of Keller et al. (US 2002/0016433).

21. Regarding the limitations set forth in these claims, the dispersion of claim 1 has been shown to be anticipated by Danish as shown above. However, Danish fails to

teach a use of the aqueous dispersion for impregnating sheet-like substrates such as concrete or brick.

22. Keller et al. (Keller, hereafter) teaches a composition for producing difficult-to-wet surfaces. The composition comprises mainly of polyisobutene and a finely divided powder (see Examples). The composition is used to impart low wettability to a surface [0014]. The surfaces to be treated with the disclosed composition are not limited and include not only leather but also porous surfaces such as concrete [0070].

23. In light of such teachings and considering that the aqueous dispersion taught by Danish has not only superior surface penetration and water-repellent properties but also serves as excellent dispersant for finely divided powder such as pigments, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have employed the aqueous dispersion taught by Danish for treating not only leather and skins but also porous substrates such as concrete and brick so that the water-resistance property of these surfaces can be improved.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Nguyen whose telephone number is (571)270-5454. The examiner can normally be reached on M-F 7:30-5:00 (Alternating Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vu Nguyen  
Examiner  
Art Unit 1796

/David Wu/  
Supervisory Patent Examiner, Art Unit 1796